

## **Title:** ADVANCING THE MANAGEMENT OF TYPE 2 DIABETES THROUGH AN INTEGRATED COMMUNITY BASED CARDIOVASCULAR DISEASE PREVENTION PROGRAMME

### **Background:**

With the prevalence of Type 2 diabetes increasing globally it is imperative that we explore models of care that seek to improve diabetes outcomes in accordance with the recommended total Cardiovascular(CVD) risk approach to prevention.

**Purpose:** This study examines the effectiveness of a community-based CVD prevention programme on medical and lifestyle risk factor management in a cohort of patients with Type 2 diabetes.

**Methods:** Patients with Type 2 diabetes and their family members were invited to attend a 16- week programme consisting of a professional multi-disciplinary (nurse, dietician, physical activity specialist) lifestyle intervention, with appropriate risk factor and therapeutic management in a community setting. Risk factors such as blood pressure, lipids, smoking, blood glucose, BMI (body mass index), waist circumference and physical activity levels were assessed at baseline, end of programme and at 1 year.

**Results:** As this study is ongoing, outcome data on patients who completed the 16 week programme and attended the 1 –Year follow-up were analysed (Table 1.). As of December 2016, 218 patients were invited to attend End of Programme (EOP) assessment, resulting in a 75% response rate (n=164), and 166 were invited to attend 1-Year follow-up (1-yr) of which 64.5% responded. Overall a high programme uptake rate of 99% was observed.

**Conclusions:** Data from this ongoing lifestyle intervention programme suggests that the management of diabetes and cardiovascular disease can be successfully integrated. In addition, this model of care can improve diabetes outcomes with improvements in biomedical, anthropometric and lifestyle risk factors not only being observed at EOP but being sustained at 1-yr.

Table 1. Summary of outcomes for patients at EOP and at 1-yr.

	Patients IA (n=164)	Patients EOP (n=164)	Patients IA (n=107)	Patients 1- yr (n=107)

<b>Mean BMI</b>	35.7	34.6 (p<0.001)	35.9	34.8 (p<0.001)
<b>Mean Mediterranean Score max=14</b>	4.1	7.2 (p<0.001)	4.0	8.0 (p<0.001)
<b>% Achieving physical activity targets</b>	9.2	56.6 (p<0.001))	12.6	44.7 (p<0.001)
<b>% Smoking</b>	15.3	10.4 (p=0.008)	15.9	13.1 (p=0.45)
<b>% Blood Pressure to target</b> <140/85mmHg	44.4	71.9 (p<0.001)	44.3	74.5 (p<0.001)
<b>% Lipids to target</b> % LDL < 2.6mmol/L	54.8	80.3 (p<0.001)	52.9	81.7 (p<0.001)
<b>% HbA1C ≤7%</b>	53	75 (p<0.001)	54.1	82.4 (p<0.001)
<b>Mean FBG (mmol/l)</b>	7.55	6.69 (p<0.001)	7.41	6.75 (p=0.003)